

MATERIAL SAFETY DATA SHEET

44

SECTION I - IDENTIFICATION

Company Name: St. Marys Carbon Company **Telephone:** (814) 781-7333
Address: 1939 State Street **Prepared by:** Phil Schlosser
St. Marys, PA 15857

Product Name: GRAPHITE PRODUCTS WITH METALLIC ADDITIVES

Chemical Name: MIXTURE

Date Prepared: 01/02/03

Replaces: 01/24/02

<u>Hazard Rating</u>				
Least	Slight	Moderate	High	Extreme
0	1	2	3	4

Reactivity = 0

SECTION II - HAZARDOUS INGREDIENTS

INGREDIENT	PERCENT	C.A.S. NO.
GRAPHITE, NATURAL	Trade Secret	7782-42-5
*SILICA, CRYSTALLINE QUARTZ	Not Determined	14808-60-7
COPPER	50%-80%	7440-50-8
LEAD	3%-10%	7439-92-1
ADDITIVE	Trade Secret	N/A

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SECTION III - OCCUPATIONAL EXPOSURE LIMITS

OSHA PEL: Copper - 1mg/cubic meter (dust), 0.1mg/cubic meter (fume)
Graphite -2.5 mg/cubic meter (respirable)
Silica - 0.1 mg/cubic meter (respirable)
Lead - 0.05 mg/cubic meter

ACGIH TLV: Copper - 1mg/cubic meter
Graphite -2 mg/cubic meter (respirable)
Silica - 0.1 mg/cubic meter (respirable)
Lead - 0.15 mg/cubic meter

CARCINOGEN: NTP - no IARC - *yes OSHA - no

“The product is a solid electrical component ranging from dark grey to copper or metallic color and presents no immediate hazards. However, dust created in shipping, handling, and use may exhibit the hazards of the ingredients as described below. AVOID CREATING AND BREATHING DUST FROM THE PRODUCT. Burning of the product may release toxic metallic oxides and irritating vapors.”

SECTION IV - HEALTH HAZARDS

Effects of exposure: Prolonged and repeated overexposure to dust may lead to pneumoconiosis. Dust particles may cause mechanical irritation to the eyes and skin. Individuals with pre-existing chronic respiratory impairment may be at increased risk of pneumoconiosis.

Copper compounds can irritate skin and eyes. Prolonged exposure to skin can cause dermatitis. Embedded particles in eyes can cause inflammation, degeneration of tissues and discoloration. Inhalation of fine dusts can cause metal fume fever (with flu-like symptoms). Ingestion can cause gastrointestinal irritation. Persons with Wilson's disease should not be exposed to copper.

Lead is not generally absorbed through the skin. Ingestion or inhalation can cause weakness, headache, anemia, nausea, constipation or diarrhea, and nervous, muscular and cardiac irregularities. Long term exposure to excessive amounts of lead can damage the nervous system, the brain and the kidneys. It has also been linked to reproductive disorders and birth defects

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through exposure to either the mother or the father. Lead is classified as Group 3 by the IARC, i.e., it cannot be classified as to its carcinogenicity.

SECTION V - EMPLOYEE PROTECTION

- Respiratory Protection:** NIOSH approved respirator for dust if exposures are expected to exceed the PELs.
- Eye Protection:** Safety glasses with side shields if there is a danger of flying particles.
- Protective Gloves:** Recommended for those with extreme sensitivity.
- Other Protective Equipment:** Eye-wash fountain, soap and water wash station.
- Ventilation:** At point of operation if machining or other dust-creating activities are performed.

SECTION VI - FIRST AID

- Skin Contact:** Wash affected area with soap and water especially before eating, smoking, and at the end of work shift.
- Eye Contact:** Do not rub eyes; immediately flush eyes with plenty of water for at least 15 minutes. Call a physician if irritation persists.
- Inhalation:** Remove to fresh air and administer artificial respiration if breathing has stopped; oxygen may also be administered. Seek medical attention.
- Ingestion:** Dilute with water or milk. Get medical attention as soon as possible.

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SECTION VII - FIRE EXPLOSION DATA

Flash Point (method used): Does not flash

Flammable Limits: N/A **LEL:** **UEL:**

Extinguishing Media: Water fog, carbon dioxide, foam.

Special Fire Fighting Procedures: Use self-contained breathing apparatus.

Unusual Fire and Explosion Hazards: Copper powder below 50 um particle size is listed as weakly explosive. Graphite dusts may weakly contribute if the event is initiated by another explosive dust or gas.

SECTION VIII - SPECIAL PRECAUTIONS

Precautions for Handling and Storing: Handle in a manner which minimizes airborne dust.

Other Precautions: Graphite dust is electrically conductive; dust accumulations may cause electrical short circuits or other malfunctions.

Occupational exposure to lead is regulated by OSHA under 29 CFR 1910.1025. Refer to the standard for further details concerning employee training, protective clothing and equipment, protection of personnel of child bearing potential and other specific requirements.

SECTION IX - ENVIRONMENTAL PROTECTION

Spill or Leak Procedures: Vacuum clean-up with a HEPA filter.

Waste Disposal Method: Dispose of according to local, state, and federal regulations.

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SECTION X - PHYSICAL DATA

Boiling Point (C)	:	1725
Vapor Pressure (mm Hg)	:	N/A
Specific Gravity (H ₂ O=1)	:	6.1-6.3
Vapor Density (Air=1)	:	N/A
Evaporation Rate (Butyl Alcohol=1)	:	N/A
Solubility in Water	:	Insoluble
Percent Volatile by Volume	:	N/A
Appearance / Odor	:	Reddish, orange solid / no odor

SECTION XI - REACTIVITY DATA

Unstable Stable

Hazardous

Polymerization: May Occur Will not occur

Conditions and Materials to Avoid: Heating to the melting point in the presence of strong oxidizing agents, high acidity.

Hazardous Decomposition Products: May yield hydrogen and noxious copper compounds, lead fumes, carbon monoxide and carbon dioxide.

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SECTION XII - SECTION 313 SUPPLIER NOTIFICATION

This product contains the following toxic chemicals subject to the reporting requirements of section 313 of the Emergency Planning and Community Right-To-Know Act of 1986 and of 40 CFR 372:

<u>CAS #</u>	<u>Chemical Name</u>	<u>Percent by Weight</u>
7440-50-8	Copper	80 Max.
7439-92-1	Lead	10 Max.

SECTION XIII - REFERENCES

ACGIH: Documentation of Threshold Limit Values

OSHA: 29 CFR 1910.1000, Table Z-1

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This is the end of MSDS 44.